DOCUMENT RESUME

ED 256 878 CE 041 377

TITLE	Follow Up Study of Female Radio and TV Servicing Apprentices. Part 1.
INSTITUTION	Society for Research on Women, Auckland (New Zealand).
SPONS AGENCY	Vocational Training Council, Wellington (New Zealand).
PUB DATE	81
NOTE	39p.; This study was carried out for the Women's Advisory Committee of the Vocational Training Council.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Apprenticeships; *Career Choice; Dropout Research; Dropouts; Females; Followup Studies; Foreign Countries; *Nontraditional Occupations; *Sex Discrimination; Sex Fairness; Student Attitudes; *Television Radio Repairers; Trade and Industrial Education; Vocational Followup; *Womens Education
IDENTIFIERS	New Zealand

ABSTRACT

Female program completers and dropouts from a one-year course in radio and television servicing at Auckland Technical Institute (New Zealand) were followed up. Respondents included nine completers from the 1977 course, eight completers from the 1978 course, and three dropouts. Background information showed that 10 completers started the course straight from school, 2 had been working at related jobs, and 5 had worked in traditional women's occupations. Five had no interest in electronics, five expressed mild interest, and seven had been interested in electronics. Newspaper advertisements had interested nine in the course. Math was voted overwhelmingly the most helpful subject taken at school. The students arranged their own apprenticeships. Six respondents found management enthusiastic; four found it quite encouraging; three had negative responses initially; one was doubtful; and two thought they were regarded as assemblers. Male apprentices were generally accepting, while unskilled men were not supportive. Only two respondents thought they were receiving discrimination. Fourteen were currently employed in the electronics industry. Eleven respondents had no reservations about having chosen electronics as a career. All respondents planned to complete their apprenticeships. (Case studies of the three dropouts are provided.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED256878

follow up study of female radio and tv servicing apprentices part 1

this study was carried out by the society for research on women (auckland branch) for the women's advisory committee of the vocational training council

CE 041377

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D Wood

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This report contains the findings of the first part of a longitudinal follow up study.

Part II of the study will be carried out in 1984-85.

BEST COPY AVAILABLE

FOLLOW UP STUDY OF FEMALE RADIO AND TV SERVICING APPRENTICES

INDEX

	Page
PART I	
Background to the Research	1
Form of Research	2
Background of Respondents	2
Age of Respondents	3
Ethnic Group	3
Occupation of Parents	3
Schooling	5
Alternative Career Choices	6
Career Choices and Relationships to Electronics	8
How did Women Hear about the Course	8
Attitudes of Significant Others to Respondents Choice of Career	9
PART II	
The Course at Auckland Technical Institute	12
To What Extent Had Respondents Schooling Prepared Them for the Course?	12
Relationship with Auckland Technical Institute Staff	15
Attitudes of Male Apprentices	15
Examination Results	16
PART III	
Apprenticeship and Subsequent Employment History	18
A First for the Majority of Firms	19
Attitudes of Company Management and Employees to Female Apprentices	20
Male Apprentices	21
Unskilled Male Labour	22
Unskilled Female Labour	22
Treatment of Female Apprentices	23
Job History	24
Attitudes of Signfiicant Others	25
1979 Achievement Levels	26
Respondents Attitudes to Their Choice of Career	27
PART IV	
The Dropouts	28
PART V	
Future Plans	30
Women Considering Establishing Their Own Business	32
Pioneers in a Male Dominated Trade - How did this affect the respondents?	33
Difficulties Encountered	33
Evaluation	34
Footnotes	36

BACKGROUND TO THE RESEARCH

In 1975 at the Wellington Conference on Education and the Equality of the Sexes a recommendation was passed that sought to encourage more women to enter the trades.[1] So few women had applied for and completed apprenticeships, apart from ladies hairdressing, that special measures seemed to be necessary to achieve this end. Accordingly, the Conference recommended that:

> "to promote the training and employment of girls in non-traditional jobs by discriminating in favour of girls for a limited number of years .... a pilot course for 14 women be offered in Radio and TV Servicing"

The recommendation for a special course for women was based on:

- research and experience in other countries which showed that women need role models to follow if they are to be attracted into traditionally male occupations; once a small group of women become established and visible in a traditionally male occupation, others will follow[2]

- the belief that women entering a non-traditional field would be more likely to succeed if they were in a group thus giving each other encouragement and support.

In 1976 the Women's Advisory Committee of the Vocational Training Council (VTC) took up this recommendation. The Committee considered the choice of trade to be particularly suitable for a pilot course of this nature because:

- there were already significant numbers of women working in electronics industry in semi and unskilled positions

- it was less likely to meet with objections based on stereotypes about women's capabilities to do "dirty" or "heavy work"

- it was seen to provide a variety of employment opportunities including the possibility of part-time work or working from home which would suit women who may spend some of their working lives sharing child rearing and domestic responsibilities.

Approval to run the course was obtained from the relevant government authorities and the first course was eventually organised over a very short period of time to be run at the Auckland Technical Institute (ATI) in 1977. The Course was designed so that the students would receive one year's full time training during which they had the opportunity to sit their 1st and 2nd qualifying exams. Students were then apprenticed to an employer for the duration of their training.

The problems arising from the haste with which VTC was forced to move, and the fact that this was the first time such a course had been run, have been covered in evaluation both by the students and by VTC personnel.[3]

A second pilot course was offered at ATI in 1978. Improved recruitment, selection, orientation and course structure resulted in fewer problems and a higher success rate.

In the organisation of and recruitment for both courses, VTC received considerable assistance from the Electronics Industry Training Board and from Vocational Guidance Personnel in Auckland.

As a result of the two pilot courses 14 women were apprenticed to the electronics industry. The special course did enable the participants to give each other support and encouragement. However, to vindicate the course, the women also need to be seen as successful role models, which can only be shown by their subsequent work history.

FORM OF RESEARCH

In 1979 the Women's Advisory Officer of VTC approached the Auckland Branch of the Society for Research on Women (SROW) and asked them if they would consider following up the progress of these women over a period of time.

VTC provided SROW with the names of the women who had entered the course and completed the year at ATI. Nine women from the 1977 course and eight women from the 1978 course were interviewed. This number includes one respondent from the 1977 course and one from the 1978 course who completed the year, but for reasons dealt with in Part IV, did not remain in the electronics industry. Two women who had dropped out from the 1977 course refused to be interviewed. Their main reason was that as they were not working in the industry they could see no reason for being included in the research. The interviewer had the impression that they felt guilty about having not completed their training and did not want to be reminded about it. One is now working as a bank teller.

Two further dropouts from the 1977 course could not be traced. All the women who completed the course and were apprenticed have been interviewed.

The questionnaire was designed to cover the period leading up to the decision to take the ATI course, the course itself, subsequent employment experience, and future plans. A final section dealt with personal data, e.g. age, ethnic group etc.

Although the questionnaire was structured, there was ample opportunity for comment, and interviewers were instructed to record any additional information volunteered by the respondents.

The research was designed and co-ordinated by Diane Strevens. Interviewers were Hueline Massey, Helen Parsons, Lyn Salmon, Carol Scott and Diane Strevens. The data was analysed and the report written by Diane Strevens.

BACKGROUND OF RESPONDENTS

It was not possible to ask too many background questions as this would have made the questionnaire far too long. Age, schooling,

occupational choices, previous job history, parents' occupations, ethnic group, and the reactions of other people to respondents' interest in electronics are covered. Where the differing recruitment procedures for the two courses affected the results, the two intakes have been dealt with separately before total figures are given.

AGE OF RESPONDENTS

Neither in the 1977 nor the 1978 course were all the women immediate school leavers. Table 1 shows the age range and distribution of those who took the courses at the time they were interviewed, i.e. 1979/80, approximately one-two years after starting.

TABLE 1

Age Groups	18-20	21-25	26-30	31-35	Number
1977	5	3		1	9
1978	6	2			8
TOTAL	11	5		1	17

The 1978 intake were more likely to be younger and immediate school leavers. This is not surprising as VTC had longer to prepare their recruitment campaign and were able to work more intensively through school Careers Advisors. Information under Career Choices indicates, however, that very few school Careers Advisors were responsible for recruiting leavers for the course.

ETHNIC GROUP

Respondents were asked to place themselves in the ethnic group to which they felt they belonged. The women were predominantly Pakeha/European (14). There were two Maoris and one Pacific Islander.

OCCUPATION OF PARENTS

Parents' occupations were included in the background information as they are often an important indicator of the type of career their children might be expected to follow. Tables 2 & 3 show that the majority of parents were in skilled or semi-skilled

trades or doing unskilled repetitive work. No parent was in an occupation that was in any way connected with television or radio repair work.

TABLE 2

Fathers Occupations

Level	Profes-sional	Props. & Mngrs	Farmers	Office & Sales	Skilled Manual	Semi-sk.mnl	Un-skilled
1							
2	1						
3				1			
4	1		1		2		
5				1	1		
6					4	1	
7						2	
No	2		1	2	7	3	

The Congalton-Havinghurst Scale: Status Rating of Occupations in New Zealand (1953)

2 fathers not recorded - 1 dead, 1 retired

TABLE 3

Mothers Occupations

Level	Profes-sional	Props. & Mngrs	Farmers	Office & Sales	Skilled Manual	Semi-Skilled	Un-skilled
1							
2							
3	2*						
4	3**						
5				4		1	
6					1	3	2
7							1
No	5			4	1	4	3

Represents mothers present or past occupations

* Nurse
** Primary School Teacher

SCHOOLING

The majority (12) came from state co-educational schools, one from a single sex state school and four from single sex private schools (three Roman Catholic and one Mormon). Three of the women in the 1977 intake had attended the same co-educational state school and two of these had first heard about the course from the Careers Advisor at the school.

Table 4 shows the number of respondents taking the following subjects during their last year at school. As English is compulsory it is not included.

TABLE 4

SCHOOL SUBJECTS TAKEN

BY RESPONDENTS

Maths (including pure and applied)	18
Biology	15
Physics	7
Chemistry	6
Geography	5
History	5
Accountancy	3
Art	2
Economics	2
General Science	2
French	1
German	1
Typing	1

Science subjects were preferred by the majority of respondents - This was hardly surprising in the light of their choice of career.

Table 5 shows the respondents' highest educational qualification on leaving school. The 1977 students had a wider spread of qualifications, but otherwise the two groups were similar.

TABLE 5

Highest Educational Qualification

on Leaving School

	Partial School Cert.	School Cert.	6th Form Cert.	Partial U.E.	U.E.	Higher School Cert.	Number
1977	1	2		1	4	1	9
1978		2	3		3		8
Number	1	4	3	1	7	1	17

4 Subjects passes constitute a pass in School Certificate.

ALTERNATIVE CAREER CHOICES

Six of the 1977 students and four of the 1978 students started the ATI Course straight from school. A look at the job history of the remaining seven suggests that only two had a definite idea of what they wanted to do - one was working for the electronics firm who sponsored her on the course, then taking her on as an apprentice; the other spent 18 months as a technician for Radio New Zealand.

Five of these women had begun their working lives in traditional women's occupations - two in teaching, two in nursing, and one in office work (business college). Only one had completed her training and although she had taught on and off for eight years, this had been interspersed with five other jobs, suggesting that she did not find teaching very satisfactory.

Respondents were asked what careers they had considered before they heard about the course. The seven women who had been employed between leaving school and starting on the course are included in this section as their job history reflects the fields in which they were initially interested. The total figure add up to more than the total number of respondents as some women had considered two or three careers.

No Idea - only one respondent had no idea what she wanted to do; she said that she just knew she didn't want to be a school teacher or a nurse.

Teaching - Six women had considered teaching, two had started and one had completed her training.

Nursing - Three had thought about nursing and one had done nine months training.

Working with Animals - Three were interested in working with animals. One had applied to be a Wildlife Trainee and been turned down, one felt there was no money or future in it and the third decided there was too much study involved in being a vet.

Eight had vague ideas about working in some type of trade. Two had considered the NZCE but had received little encouragement when they discussed it with a personnel officer at work and a tutor at ATI respectively. A third had thought about being a motor mechanic, and a fourth a fitter and turner or something in the engineering line.

When the respondents were asked whether they had ever considered any sort of trade training or apprenticeship, nine had never thought about this as a career - one commented that she didn't know girls could even do such things. Of the eight who had thought about trades, only two had taken any steps to find out more about the possibilities.

Eleven said that no-one had suggested a trade to them although one said her father had joked about it! The fathers of three respondents had tried to interest their daughters in a trade - in one instance all members of the family apart from the youngest daughter were engaged in a trade. One had a neighbour connected with VTC who had raised the possibility, another was working on an assembly line and her supervisor suggested an apprenticeship.

Only one respondent mentioned the school Careers Advisor suggesting a trade as a possible career, which would seem to indicate that girls leaving school are not being encouraged to enter the trades. Considering that Careers Advisors are sometimes the only readily available source of information for school leavers, this does not augur well for girls who are not interested in traditional "women's jobs". The effects of not encouraging girls into non-traditional jobs may have serious repercussions for their future employment prospects when one considers the impact of micro technology on traditionally female occupations.

The above information also shows that if VTC had not initiated the pilot courses, the women who took the courses and were subsequently apprenticed, would have been very unlikely to have entered a trade.

CAREER CHOICES AND RELATIONSHIP TO ELECTRONICS

Five respondents said they had no previous interest in electronics, either through subjects taken at school or hobbies pursued at home, and therefore no thoughts of entering the electronics field as a career.

Five expressed what might be described as mild interest - they had enjoyed school subjects where they had touched on electronic theory but had not thought about following this interest as a career.

The remaining seven had all been interested to greater or lesser extent in electronics - this had ranged from an interest in "how things work" to fixing radios, fascination with sound reproduction and dismantling and reassembling small motors. Two of these women had worked on assembly lines in television and radio factories before taking the course. Another had considered an apprenticeship and two had hoped to take the NZCE - one of these had enquired at ATI about the certificate but had not received much encouragement.

Taking the group as a whole, however, fewer than half recognised electronics as a field in which they might look for a career, and it certainly does not appear to have been actively encouraged by Careers Advisors in the schools.

HOW DID WOMEN HEAR ABOUT THE COURSE AND WHY DID THEY APPLY?

Newspaper advertisements had interested nine women in the course - in two instances it was a mother who had seen the advertisements and passed the information on to her daughter. One respondent heard about the course on the radio. Two learnt about it from their workplace, three from Vocational Guidance personnel and two from other people, i.e. a neighbour and a friend.

Nine women applied for the course because it seemed to be in line with their own interests. These included an enjoyment of Physics and Maths at School and Electronic related hobbies.

The other eight had not decided what sort of career they wanted. They appeared to be casting around and when they heard about the course, they applied because in the words of one respondent, "It sounded interesting and different".

ATTITUDES OF SIGNIFICANT OTHERS TO RESPONDENTS' CHOICE OF CAREER

Respondents were asked to mark on a scale, with responses ranging from "definitely against" to "enthusiastic", where they felt the attitudes of mother, father, female and male friends, teachers, Vocational Guidance Counsellors and those of any other perons should be placed. Parental attitudes were analysed in terms of the father's occupation. (Tables 6 and 7).

TABLE 6

Mother's Attitude

Father's Occupation	Definitely Against	Not very Encouraging	Neither for nor Against	Fairly Encouraging	Enthusiastic
Professional		1		1	
Farmer					1
Office & Sales					2
Skilled Manual			1	2	2
Semi-skilled				3	2
Retired			1		
Deceased				1	
Total		1	2	7	7

TABLE 7

Father's Attitude

Father's Occupation	Definitely Against	Not Very Encouraging	Neither for Nor Against	Fairly Encouraging	Enthusiastic
Professional			1		1
Farmer				1	
Office & Sales					2
Skilled Manual			1	1	3
Semi-skilled			2	1	1
Retired		1			
Deceased				1	
TOTAL		1	4	4	7

It seems that fathers' occupations had little bearing on parental attitudes, i.e. A skilled tradesman was no more likely to be enthusiastic about his daughter's choice of career than a professional man. However, the total numbers are too small for this to have any statistical significance.

The majority of fathers were happy with their daughter's choice of a career, but mothers tended to be more supportive. This was possibly because so few of the mothers had trained for any career, and two respondents volunteered the information that their mothers thought it very important for a girl to be trained, and wished they had had the opportunity.

Most respondents found their female and male friends fairly encouraging; female friends slightly more so than males. (Table 8). Some friends' reactions were described as "surprised", "sceptical that I would succeed", and "thought it was a big joke", but on the whole it was heartening to note that only three respondents saw friends' reactions as "not very encouraging", and none encountered open opposition.

TABLE 8

Friends Attitude

	Definitely Against	Not Very Encouraging	Neither for nor Against	Fairly Encouraging	Enthus-iastic	Number
FEMALE		2	5	9	1	17
MALE		1	9	6	1	17
NUMBER		3	14	15	2	34

Just under half (eight) of the respondents had discussed their choice of careers with a teacher other than a Careers Advisor. Two were reported as being not very encouraging, one as neither for nor against, four as fairly encouraging, and one as enthusiastic.

The five women who had consulted Careers Advisors or Vocational Guidance Counsellors had found them to be fairly encouraging. This does not include those who consulted VTC personnel after they had heard about the course.

Six respondents cited other people's reactions as significant.

TABLE 9

Definitely Against	Not Very Encouraging	Neither for Nor Against	Fairly Encouraging	Enthusiastic
	Boy Friend	Brother Boy Friend	Workmates	Husband Employer

PART II

THE COURSE AT AUCKLAND TECHNICAL INSTITUTE

To what Extent Had Respondents' Schooling Prepared Them for the Course?

The first part of this section looks at the degree to which the students felt their schooling had prepared them for the course. As Table 5 indicates, both the 1977 and the 1978 intakes had a fairly wide spread of educational qualifications. The course was fairly basic and students had no problems coping with the content, although this elementary level did result in boredom for some of the better qualified students.

TABLE 10

School Subjects Most Helpful to the Course

SUBJECT	NUMBER
Maths	13
Physics	7
Chemistry	1
General Science	1
Tech.Drawing (4th form course)	1

Maths was voted overwhelmingly the most helpful subject taken at school. If the seven students who found Physics helpful are added to the six who would have taken Physics had they realised how useful it would be, (see Table 11), then Physics ranks equal in importance to Maths. One respondent commented that her school Chemistry had not been very relevant to the course. Two respondents were unable to cite any subjects which they found helpful - one of these however had only passed two School Certificate subjects and had been away from school for four years.

Table 11 shows subjects which respondents either would have taken at school, had they been aware that they would be enrolling in the ATI course, or would have liked to have taken had they been available at their schools. The respondent who had only passed two School Certificate subjects is not included in this table, as she would have liked a complete course including Technical Drawing, Maths, Chemistry, Physics, Mechanics and Electrical Theory, all of which were offered at the school she had attended.

TABLE 11

Subjects not Taken at School

Which Would Have Been Helpful

SUBJECT	NUMBER
Physics	6
Metalwork	2
Engineering	-

Metalwork was not an option at the schools (both co-educational) attended by the two respondents cited in the above table. One respondent, also at a co-educational school, would have liked a course in Electrical Studies, which she knew was offered at some boys' schools. None of the respondents, apart from the three just quoted, felt the school syllabus or timetable was to blame for this lack. The overall feeling was that they could have either taken or developed these subjects further, but as they did not know that they would enter the radio and television servicing trade, had not seen them as relevant or useful.

Some of the students who had not taken 6th form Maths were the only ones to have any real trouble with the academic content of the course. Four respondents commented on the basic nature of the course - "Although I only had School Certificate I had no trouble - the ATI course was pitched fairly low to start with to cover all stages of students' knowledge." (1977 student). Extra Maths and Technical Drawing were added to the course when it became evident that some students were having difficulties, although one respondent commented that she felt ATI were adding time to the course so that they would all qualify for a bursary.

In Table 12 the students' evaluations of their schooling with regard to the course are analysed in terms of their highest educational qualification on leaving school.

TABLE 12

	Part S.C.	School Cert.	6th form Cert.	Part U.E.	U.E.	Higher Sch.Ct	Number
Extra help	1	2	1				4
No extra help needed		2	3	1	6	1	13

The respondent with 6th Form Certificate felt she needed more Physics and Maths because she had not really been interested in her 6th Form year. The older three all wanted help with Maths.

Other Difficulties - 1977 Course

Teething problems which arose during the 1977 course were monitored by VTC through discussions and written evaluations from both students and staff. To a certain extent then, this section of the report will reiterate what is already known. It should also be remembered that as the women attended the course one to two years before the interview, their recollections will have been modified by time. Problems which seemed very annoying or posed great difficulties might no longer seem so important when viewed from a distance.

The major problems, excluding those of academic standard required and attitudes of ATI staff are listed below (in brackets the number of 1977 students who mentioned these during the interview).

1. Lack of work experience in the industry making much of the theoretical content of the course difficult to understand, and in some areas appear irrelevant. (4)

2. Course time far too long for the syllabus content directly pertaining to the Radio Trades examination. (6)

3. The class was too isolated from the rest of the Institute - they attended 90% of their classes as one group and personal frictions and cliques developed. (3)

4. The course length caused financial embarrassment to some women. (1)

A comparison of the comments made in the questionnaire with those made by the students at the time of the course (appearing in VTC reports) suggest that time has dimmed much of the frustration felt during the year.

Minor alterations were made during the 1977 course e.g. an attempt to give the students more practical work, but only four respondents felt any changes had been made.

1978 Course

Substantial changes were made to the 1978 course in an attempt to solve the problems encountered during the previous year - classes were integrated with other groups where possible, course hours were cut back, and liaison between ATI and the

firms providing practical experience for the students was strengthened. Despite these changes six respondents (cf.four, 1977 students) mentioned the lack of practical experience as being their major difficulty. Two felt this lack particulary in the areas of Test Procedures and Fault-finding.

Two respondents still found the course too long. They felt they could have covered the necessary ground in a shorter period.

No-one mentioned isolation from the rest of the Institute or friction within the class as a problem, but two respondents had found it difficult to manage on a student bursary.

Overall, however, as the following section indicates, the 1978 students were more satisfied with the course than their predecessors.

Relationship with Auckland Technical Institute Staff

One of the major problems mentioned by the 1977 students which does not feature in the VTC reports, was the attitudes of many ATI staff to women entering a traditional male occupation. Seven of the nine respondents attending the 1977 course commented on poor staff/student relationships. They felt that older tutors, especially those who had come from a trade background, did not like teaching women. Comments such as "they took a lot of time to adjust to us - referred to us as 'the ladies'" and "couldn't believe females were people" give a fair indication of tutor attitudes, as perceived by the respondents. All qualified this criticism with praise for the one or two tutors who had been especially helpful. Younger tutors were seen as more positive in their attitudes than older tutors.

This situation seems to have been a direct consequence of the haste with which the 1977 course was set up and the difficulty in recruiting staff. Members of the 1978 course knew about this friction, but expressed satisfaction with their own tutors, apart from one, and this had been remedied after class members had laid a complaint. It seems that the extra preparation and time put into the 1978 course paid dividends in a more harmonious year.

Attitudes of Male Apprentices

The only contact the 1977 class had with male apprentices during the year was while working in firms during the holidays. The general feeling was that whereas the men may have been surprised or curious initially, on the whole they were ready to accept women in the radio and TV repair trade. Three respondents had noticed that some men resented the fact that the women were able to sit two exams in one year and they saw no reason why this special treatment should be given.

The 1978 class had limited contact with male apprentices during their year at ATI. They attended a workshop practice session with the NZCE Telecom apprentices - a class which one respondent described as "slow, boring and irrelevant". Because of this, not

many actually attended the class, which may explain why five respondents said they had no contact with male apprentices at ATI.

Those who had some contact said the apprentices started off "cracking jokes at our special class" but once they realised the women were serious, they were "quite helpful". One respondent would have liked more mixed classes - she thought this would have made the men realise that women were quite capable of learning the skills needed. Another less confident respondent felt that mixed classes would be a mistake as "the boys would have streaked ahead".

The contact between the women on the course and men in the field was clearly effective in breaking down old prejudices - something that has been found time and time again in research on women entering traditionally male occupations. Once men see that women can handle the job, very few are unwilling to treat them as co-workers. (See Part III - Attitudes to Female Apprentices on the Job).

Examination Results

Academically the 1978 students were more successful than the 1977 students.

TABLE 13

	1977	%	1978	%
1st Qualifying passed 1st year	7	77.8	8	100
2nd Qualifying passed 1st year	3	37.5	8	100
2nd Qualifying passed 2nd year	3	37.5		
2nd Qualifying Sat 3rd year	2	25		

One student withdrew at the end of the 1977 course so the total number of students for this year now equals eight.

Results for the two respondents who sat their Second Qualifying Exam in 1979 were not available at the time of the interview.

As the school leaving qualifications did not vary greatly between the two classes (see Table 3) much of this success must be attributed

to improved course recruitment and preparation, and more harmonious staff/student relationships. If similar courses are to be set up in other trades to encourage more women to enter apprenticeships, the biggest hurdle seems to be the question of sufficient practical experience.

PART III

APPRENTICESHIP AND SUBSEQUENT EMPLOYMENT HISTORY

Apprenticeship

Prior to the 1977 and 1978 courses VTC, through the Electronics Industry Training Board, canvassed for companies willing to take on female apprentices. Consequently they were able to provide the students with a list of firms who accepted the principle behind the scheme. It was then up to the individual students to arrange their own apprenticeships.

1977 Students

All the 1977 students (eight) approached firms from this list. The vetting process was a two way affair - in some cases students turned down firms, even where they had been accepted, because they were not happy with company attitudes and/or working conditions. However, considering that the firms had already been selected by VTC, it was hardly surprising that no student had a real problem in finding a suitable apprenticeship.

Two students applied to one firm - both were accepted.

Five students applied to two firms - four were accepted by one or other. The fifth was turned down by the first because they said they were looking for someone older (she was 19). She did not apply to the second in the end, because most of the class seemed to be applying for this position, and she felt the others were better qualified. She was approached by the boss of the firm where she had worked as an assembler and she rather reluctantly accepted an apprenticeship there, although she felt that their treatment of apprentices, regardless of sex, was not progressive.

One student approached three firms - the first was a small family firm who were unaware that there were female apprentices; they said they would try one if she were extra good. The second firm were interested, and later took on two other students, but she turned them down. She was apprenticed to the third firm.

1978 Students

Due to deteriorating economic conditions, VTC found it more difficult to recruit firms in the following year. The 1978 students had, on the whole, more trouble getting apprenticeships, in terms of the number of companies approached. Once again a list of firms was provided by VTC for the students. Six students applied only to firms on the list, one used both the list and the telephone book, and one approached a firm on her own initiative and was accepted.

Three students applied to one firm only, but of these one was already working for the firm who sponsored her on the ATI course. In the second instance, VTC made the approach and arranged the interview, after which the student was accepted. The third was the student who secured the apprenticeship on her own initiative.

One student wrote to three firms but was accepted at her first interview.

Two applied to four and two to five firms. One of these secured an apprenticeship in Hamilton, after considerable effort on VTC's part. All but one of the firms approached said they had no vacancies for an apprentice. The boss of the firm that finally took her on said he thought a woman's place was on the assembly line - not as an apprentice. A, felt he had accepted her by the end of her ATI year.

Two positions were turned down by students because they "didn't like the look of the place". Otherwise reasons for non-acceptance were:

(a) Position filled (3)
(b) No vacancies for apprentices (2)
(c) Closing down (1)
(d) Firm could not take on apprentices because of the way it operated
(e) Student did not have UE therefore not capable of doing the course.

There is no way of knowing whether these refusals were genuine or not - presumably the firms were not averse to female apprentices as they had agreed to go on VTC's list. One respondent said that the three firms who had told her the position was filled were only making excuses as she later met people who got jobs after her.

The finding of suitable apprenticeships was possibly the most difficult part of the whole scheme, and also one of the most important, for the women's performance on the job would affect attitudes to the future employment of female apprentices, and generally to women working in traditional male fields.

A First for the Majority of Firms

Seven of the 1977 students were the first female apprentices to be taken on by their respective firms. Two of these firms took two women on at the same time. One student was the fourth female apprentice to be employed by her company.

Only two of the above firms took on female apprentices from the 1978 course. As the management of these firms were not interviewed, we do not know whether this was because they were dissatisfied with their current female apprentices (although the section on attitudes of management would seem to belie this),

whether they wanted to give them a longer trial period before taking on any more women, or whether the deteriorating economic situation meant there were no further apprenticeship vacancies. Consequently, six of the 1978 class were the first female apprentices at their respective firms, although one firm was employing a service woman.

Attitudes of Company Management and Employees to Female Apprentices

This section describes the respondents' perception of the attitudes of other people working in their firm, both when they started as an apprentice and at the time of the interview (1-2 years later).

The size of the firms in which the women began their apprenticeships ranged from small family businesses in which everyone came into daily personal contact with each other, to large industries with several levels of management and considerable differentiation between skilled and unskilled labour. The smaller the firm the more likely were close and friendly staff relationships. In some of the larger firms the women found that while the general manager might be quite happy to employ female apprentices, middle management were not so helpful, and vice versa. Some small firms employed no or very little unskilled labour, while in larger firms it took six months to one year for the women to get to know people who worked in different departments.

Management

Six respondents spoke of the management as being enthusiastic - this number includes the two firms who had taken female apprentices in 1977 and again in 1978. However, although one respondent in this group described her boss as being interested in her progress and always helpful, she had problems with the service manager who "gives me the worst jobs and then tells me off for doing things incorrectly when I've followed all his instructions".

Four found management "quite encouraging" although one complained that apprentices were given no on the job training. She had brought this up with her boss and things had improved for a while. This particular firm had decided not to take on any more apprentices and had only employed her to give the VTC scheme a chance (or so they said). Hence their probable lack of interest in on-the-job training.

One respondent thought her employer was not too worried about her being female.

Three had negative responses from management initially - J's boss said she would not last the course because she was not really interested in electronics. He then thought her marvellous when she passed her First and Second Qualifying Exams in one year (male apprentices frequently fail their first attempt). When she failed her first try at Trades Certificate, she felt he finally regarded her as normal. B's employer was very

concerned about previous women's lack of success. He warned her abour marriage, pregnancy etc. and told her of a TV course in Wellington which failed because so many women got pregnant and/or married. Unfortunately B did not pass Second Qualifying Exam at her first attempt, but she is still employed by a different branch of the same firm, and at the time of the interview was neither married nor pregnant. When L. turned up for her interview in a dress, the manager said dresses need not be worn - trousers were better. She felt he was the only one against her at the start, and thought she would be better on the assembly line. It took a year for him to get used to her, and at the end of this time she felt he accepted her.

Two respondents were annoyed that despite being apprentices, management treated them as assembly line workers. One had been on the assembly line with the firm before starting the course, and was given most assembly line work in her first year as an apprentice. Failing her Second Qualifying Exam did not help her position but she did find her supervisors, most of whom had completed their apprenticeships, very helpful.

The second respondent was very bitter about the way female apprentices were exploited by the managerial staff - they were used for unskilled labour whenever there was a need, whereas male apprentices were never asked to do this sort of work.

At the end of the first year of apprenticeship, the attitudes of management towards female apprentices looked quite promising for the future employment of women in the radio and TV trade.

TABLE 14

Attitudes of Management at Time of Interview

Enthusiastic	6
Quite Encouraging	4
Accepting (3 initially negative)	3
Doubtful	1
Regarded women as assemblers	2

Male Apprentices

Just over one third of the respondents (five) had experienced jealousy from male apprentices on the job, because the women were able to qualify more quickly. In all cases this feeling did not last, and the five respondents felt that after about six months they were on good terms with each other.

In eight cases the male apprentices' reactions ranged from

"quite accepting" to "really good and helpful". In two instances male apprentices had been somewhat reserved, but by the end of the year were "more relaxed and friendlier". One firm had no male apprentices or unskilled male labour, but of the three electronics technicians employed, two were very helpful and one thought women should not be doing this sort of work.

At the time of the interview then, there was 100% male apprentice acceptance of female apprentices.

Unskilled Male Labour

Reactions from men in this category were not as encouraging, but the women usually had less contact with them and less opportunity to prove themselves.

Five respondents either had no contact with unskilled male labour or none were employed by the firm. Three found them initially accepting and three found them reserved at the start of their apprenticeship, but accepting by the time of the interview. One thought they were jealous of her being an apprentice and one respondent said they regarded her as an assembler. In three firms they were seen as helpful and supportive.

As far as all males were concerned, respondents generally found younger staff more encouraging. (cf. remarks on attitudes of ATI staff p.15). As many young people perceive older people to be less sympathetic towards them this comment may reflect a "generation gap" as much as non-acceptance of female apprentice.

Unskilled Female Labour

On the whole unskilled female employees tended to be more supportive than the males in this category. Two were described as accepting and five as initially reserved but accepting by the end of the first year. Five were seen as openly encouraging, and in three instances had commented that they wished they had the same opportunities. Four respondents either had little contact with unskilled female labour or else none was employed by the firm.

TABLE 15

Comparison of Attitudes of Unskilled Male and Female Employees to Female Apprentices

	Female	Male
Little contact or none employed by firm	4	5
Jealous	-	1
Initially reserved but accepting by end of year	5	3
Initially accepting	2	3
Supporting and helpful	5	3
Thought respondent was as assembler	-	1
Total number	16	16

Again most respondents felt that where attitudes had been reserved, or even antagonistic, once staff saw that the women were capable of handling the job they were accepted.

Treatment of Female Apprentices

"Did you feel you were treated differently in any way because you were a female apprentice?"

It became obvious from reading the answer to this question that apprentices generally receive varying treatment according to the firms they are with. In some cases they are expected to do all sorts of odd jobs e.g. painting the toilet floors, in addition to their own work and one respondent said her firm gave all apprentices - male and female - a raw deal. At the other end of the scale some firms provide extensive on-the-job training and run special courses for apprentices if the need arises.

Seven respondents thought they received the same treatment as male apprentices and one commented that "as most male apprentices leave" she felt in a strong position to "push for things".

Of the remaining nine, four thought they were treated more leniently because they were women - "males get shoved in at the deep end" - two had trouble convincing the man that they were able to lift TV sets, and one respondent's boss was reluctant

for her to go out on the road. When she tackled him about this, he had no valid reason, but she thinks he was concerned about customer reaction. She stuck up for herself and has since done very well in this field.

Five thought that the women were given more boring and repetitive work and often treated as assemblers. When J. asked her boss why male apprentices were not asked to do this work she was told that women have smaller hands! One of these five respondents is on an unsigned apprenticeship and another has not passed her Second Qualifying Exam - both will press strongly for no assembly work once they are qualified. Another said that the situation had now changed and the women were being given more responsibility than the men, as they were doing the organising and booking in of technicians.

At the time of the interview only two respondents thought they were receiving negative discrimination because they were women.

Job History

Seven of the women from the 1977 course and seven from the 1978 course are currently (1979) employed in the electronic industry. The two who are no longer working in this field will be discussed in Part IV of the report together with the respondent who left at the end of the ATI course, in 1977. The total number of respondents now equals 14. The numbers of female dropouts after one year of apprenticeship would really need to be compared with a similar group of males before any comment could be made, bearing in mind that having been specially recruited for the course, one would expect the women to be slightly more motivated.

The employment history of the women is fairly stable, although once again this needs to be compared with males to get some idea of the general pattern. Of the seven students from the 1977 course currently employed in the trade, six are still with the firms that took them on initially as apprentices. L. was forced to change her job because she did not pass her Second Qualifying Exams and the firm would not keep her on. She is at present working as an electronic assembler in another firm and waiting for her employer to register her so that she can finish her course.

Five of the 1978 course are with the same firms who took them on as apprentices. Of the other two, A. has changed her job three times - the first firm reduced their staff as they were concentrating on a different aspect of the industry, and she had problems with some of the older male staff at the second firm. She is now working for a subsidiary group owned by the latter firm, who arranged her transfer. S's firm were in financial difficulties and could not afford to keep her on. However, her employer said she could stay until she found another position, and wrote to a number of businesses on her behalf. She has since been employed by a company who approached her, and is very satisfied with her position.

Attitudes of Significant Others

Respondents were asked what the attitudes of other people in their lives were now to their choice of career, using the same five point scale as used earlier in the interview. As the attitudes of those working with the women changed once they saw their capabilities, so we would expect other people's attitudes to shift in a favourable direction, or certainly not to become less approving, once the women established a satisfactory record in the industry.

TABLE 16

Attitudes of Significant Others at the Time of the Interview

Person	Definitely Against	Not Very Encouraging	Neither for Nor Against	Fairly Encouraging	Enthusiastic	No.
Mother			2	4	8	14
Father		1		4	6	11
Female Friends			1	9	4	14
Male Friends		1		10	3	14
Other					2 (husband)	2
TOTAL	-	2	3	27	23	55

Three fathers were dead and therefore do not appear on the table.

The changes in attitude were in the predicted direction. Two mothers had shifted from "fairly encouraging" to "enthusiastic"; one father from "neither for nor against" to "enthusiastic". These numbers are not large as on the whole parents had been initially encouraging. (see Tables 6 and 7).

The biggest shifts took place in friends' attitudes - two respondents felt their female friends had shifted from "neither for nor against" to "fairly encouraging"; and four saw their friends who had been at various stages on the scale, as now being "enthusiastic". One respondent commented "they all want me to fix their TV's now".

Considering the influence of peer groups, these shifts in attitude are important. Generally speaking all the women were receiving some support from significant people in their lives,

and most were very well supported. Two women emphasised their mothers' encouragement and how they kept them going if they "got a bit down".

1979 Achievement Levels

After two-three years the women's achievements varied a great deal, both in apprenticeship hours completed and exams passed. Again these figures would need to be compared with male apprentices to see where they fall in a normal pattern.

TABLE 17

Apprenticeship Hours Completed

Year	1500	2000	2500	3000	3500	4000	4500	6000	No.
1977		1			1	3		1	6
1978	1	2	1	1		1	1		7
No.	1	3	1	1	1	4	1	1	13

One respondent from the 1977 course did not know how many hours she had completed.

Second Qualifying Exam

1977 class - two resat the exam in 1979 and were awaiting the results at the time of the interview. One is waiting for her new boss to register her so she can return to night school and resit the Second Qualifying Exam.

These three women have not of course sat their Trades Certificate.

TABLE 18

Trades Certificate

Year Sat	Exam	Passed	Awaiting Results	Failed	No.
1977	4	1	2	1	4
1978	6		4	2	6
No.	10	1	6	3	10

One member of the 1978 course was not asked the question by the interviewer.

Another 1978 student included in Awaiting Results has passed two subjects and has gone for a recount on her third.

The three women who failed are resitting in 1980.

Respondents' Attitudes to Their Choice of Career

Respondents' feelings about their choice of career were influenced in some cases by their present employment conditions. Nine of the women were quite satisfied with their current place of work. Five were less so, but only in one instance was the respondent unhappy because she felt that she personally was being exploited. Three complained about poor worker/boss relationships, and one respondent knew her firm was getting into financial difficulties, which made her feel very unsettled.

Eleven respondents had no reservations about having chosen electonics as a career - this number includes two of the women who were not happy with their present place of employment. Two were somewhat doubtful (both were dissatisfied with their current employer's treatment of them) but had no immediate plans to leave the trade.

The third was described by the interviewer as lacking in self confidence and very negative about being a woman in a male dominated trade. She had had a successful school career (passed U.E.), had passed her Second Qualifying Exam (second attempt) but felt she lacked sufficient knowledge to do the job. She suspects that if a customer has any complaints, she will be blamed because she is a female. She says she has no real reason for thinking this - "it's just a feeling". At the moment she plans to stay in the trade for only one more year and will then take a long holiday.

Of the seven women who had tried an assortment of training and employment, none of which seemed satisfactory to them, one left the course at the end of her ATI year. One is somewhat doubtful of her future, but improved working conditions would probably alter her outlook, and five seem to have found their niche and are planning to continue in the industry.

PART IV

THE DROPOUTS

Taking into account both the small number of women interviewed in this category (three) and the diversity of their reasons for leaving the trade, there is little point in comparing the data and looking for common factors. Instead the interviews have been written up as three case studies in order to give some understanding of why these women did not continue with their training.

Jenny

Jenny had considered both nursing and some form of electrical work (she likes using her hands) as possible careers. She passed her School Certificate and was two weeks into her 6th form year at school when the ATI course was advertised through the school Careers Advisor. Jenny thought this sounded interesting and made a quick decision to leave school and enrol in the course. Both her parents were fairly encouraging and she was accepted as a student.

She had some difficulty in finding a firm to accept her as an apprentice - she felt that Z Bros employed her (and another student) rather reluctantly. Her work record at ATI was poor - she failed her First Qualifying Exam twice and was therefore ineligible to continue working for Z Bros. She said she lost her enthusiasm for the trade after her exam failures and thought she would try something else. She left A.T.I. just before the end of the course.

Consequently Jenny turned to her other career choice - nursing. Initially she became a wardsmaid at Auckland Public Hospital where she worked for 8 months. From September 1978 to February 1979 she trained for general nursing, but missed her exams, so she was not able to continue her training at an Auckland-based nursing school. She then secured a job nurse-aiding at Middlemore Maternity Hospital.

In 1980 she plans to return to school to study for University Entrance and continue nurse-aiding part-time. She has obviously made more attempt to stick with the nursing than she did with the radio and T.V. repair trade. The interviewer commented that she felt the respondent was too young when she started the course - her work attitudes and general maturity would have been better had she completed her 6th form year at school. Even at the time of the interview, the interviewer was doubtful as to whether Jenny was really prepared to put the necessary work into her studies.

Electronics remains a hobby, but Jenny is unlikely to return to the radio and T.V. repair trade.

Sue

Sue had passed her University Entrance and completed 9 months of nursing training, when she heard the special radio and T.V. course advertised on the radio. She was not happy nursing, and although she had had no previous interest in electronics, thought it sounded different and interesting. Both her parents were enthusiastic and she was accepted for the course.

She passed both her First and Second Qualifying Exams, but did not find an apprenticeship so easily. After considerable effort and help from VTC she was apprenticed to a firm in her home town. Although her employer thought a woman's place was on the assembly line, his attitude improved during the year and she found the working conditions satisfactory.

However, she became engaged and shifted to Auckland, where she was to be married, at the end of the year. In order to save some money she was anxious to find a well paid job. She attempted to find another apprenticeship with the help of Vocational Guidance, but without success. In the end she and Vocational Guidance decided it was not worth further effort.

She is now employed as a receptionist doing job sheets for an electronics firm - a position she feels she gained because of her year at Auckland Technical Institute. Although she found the course a valuable experience, she would not go back to the trade. She finds her present job enjoyable, and has obviously not thought very much about long term employment opportunities.

Carol

Carol might be termed a temporary dropout as she was between jobs at the time of the interview. Her record in the trade up to this time had been quite successful. At school she had passed her University Entrance and thought about becoming a primary school teacher. When consulting the school Careers Advisor, she mentioned an interest in engineering and was told about the course. This idea was encouraged by her parents.

Carol passed her First and Second Qualifying Exams, and found a satisfactory apprenticeship without much trouble. However she wanted to specialise in the trade and this was not possible at her current place of employment. She therefore left the firm in 1979 and took a long holiday.

Since her return she has been looking at the Situations Vacant but does not really know how or where to find employment that will offer her the desired opportunities. She is thinking of approaching either Air New Zealand or Television New Zealand. Although she was unemployed at the time of the interview, the interviewer felt she was genuinely looking for a job in the electronics field, and was likely to stay in the trade.

PART V

FUTURE PLANS

Eleven of the 14 women employed in the electronics industry were at the time of the interview neither married, engaged, nor living in a defacto relationship. Of the three who were married, two thought their careers were as important as their husband, while the third said that if there was any clash her husband's career would take precedence. When asked whether they would alter their place or hours of work to fit in with their husband, one said not until she was out of her time, another said the situation would be thoroughly discussed before any changes were made, and the third is moving to a different branch of the firm she is with, as her husband's change of occupation has meant a housing shift. However as she is still able to continue with her apprenticeship she does not feel her career has been affected.

Two of the married respondents have no children but both hope to start a family in the future. Having a baby has been delayed in both marriages as the respondents want to get further along in the trade. One said she must stay at least two more years in order to be fully qualified. She felt that if she took four years off to have a family before she was qualified it would be too difficult to get back into the industry. Neither would consider outside employment while their children were preschoolers, although one was interested in part-time work at home. Both anticipated working part-time once their youngest child was at school. The children of the third respondent in this category were all at school, and as she was already working full-time, these questions were irrelevant.

Plans for the Next 3 - 5 Years

All the respondents (14) planned to complete their apprenticeships. Two had decided to leave their present employment as soon as their time was completed (within the next 12 months) and travel overseas. One will not return to the trade, the other thinks she will probably do so.

Five respondents hope to continue in their present employment for the next two - four years. They all want to travel overseas but only two are definite about continuing in the trade on their return. J. is applying for an American work permit at the end of the year but she does not know whether there will be work available in the electronic field in the States. She is also interested in full-time gym coaching and her future career seems to depend on the outcome of her travel plans. There is a possibility that she may continue in electronics if her gym coaching plans do not work out.

S. foresees a gradual increase in the amount of private repair work she takes on at home, and once her hours are completed,

she plans to continue her education in another field - perhaps teaching or social work, whilst supporting herself with radio and T.V. repair work. Travel plans are fairly definite, but she doesn't discount the possibility of returning to the trade when she comes home. L. also hopes to travel and depending on how things turn out, may work in the field overseas and continue in the trade on her return.

Only one of the remaining seven has definite plans for the future; J. has her career firmly mapped out - 18 months to the completion of her Trades Certificate, then two years on the road to complete the hours needed for Advanced Trades Certificate. She plans to travel but will definitely return to the trade when she comes back to New Zealand. All the others (six) hope to stay with their present firm for the "foreseeable future" (i.e. at least the next four years). Three hope to travel overseas at some stage and would continue working in the trade on their return.

A follow up study in three - five years should provide an interesting comparison between the respondents present ideas about the future, and the ways in which these have been affected by circumstances.

TABLE 19

Respondents' Plans for the Next 3-5 Years

	1977 Students	1978 Students	No.
Finish Apprenticeship	7	7	14
Remain in present job 1 year or under	2	-	2
Remain in present job 2-4 years	1	4	5
Remain in present job 4+ years	4	3	7
Definite overseas travel plans	3	3	6
Possible overseas travel	2	2	4
No overseas travel	2	2	4
TOTAL NUMBER	21	21	42

TABLE 20

Nos. Returning to Trade after Overseas Travel

	1977 Students	1978 Students	No.
Will return to trade	2	3	5
May return to trade	2	2	4
Will not return to trade	1	-	1
Interested in overseas travel	5	5	10
TOTAL NUMBER	10	10	20

N.B. These figures are based on, in many cases, rather vague plans, and cannot be regarded as a definite indication of numbers remaining in the trade.

Women Considering Establishing Their Own Business

Respondents answers to the question of whether they had considered the possibility of establishing their own business were both an indication of their youth and their concept of the female role. Just under half (six) had not even thought about the possibility. Six of the remaining eight had considered it briefly but had decided against it; three thought that the big firms had a monopoly on the market and it would be impossible to make a profit. Two were unwilling to accept a managerial role and one of these added that if she were going to work on her own she'd work with someone who had HIS own business (capitals mine). Two of these five respondents also thought they would have to work very long hours to show any profit. The sixth said that she would consider repair work at home if she were not in full-time employment, but did not regard this as setting up her own business.

The remaining two respondents were quite interested in the prospect, but neither had any definite plans, as both wanted to complete their apprenticeships and travel overseas before returning to the trade.

It seems likely that the uncertain economic situation, plus the fact that one respondent had been forced to change jobs because her firm went bankrupt, and another knew her firm was having financial difficulties, would also have had some bearing on their attitudes.

Pioneers in a Male Dominated Trade - How Did This Affect the Respondents?

Respondents were fairly positive about women entering the trades - 13 said they would encourage girls leaving school to consider taking up a trade and seven were enthusiastic about the prospect.

> "Women have a real aptitude for lots of trades. For example I found metalwork similar to sewing and in my class the girls' neatness and care made them better than boys."

> "Girls don't realise what they can do and Vocational Guidance isn't geared to this."

One respondent stressed the importance of girls entering the trades straight from school so they didn't get out of the habit of study. Eight respondents had actually suggested a trades career to girls either leaving school or working in their firm, and one had been asked to speak on the topic to a group of girls at a single sex girls grammar school. Three had been approached by school leavers seeking information on apprenticeships and wanting to know what was involved in a trades career.

Because of their positive attitude these women would be a good source of information for Careers Advisors in schools trying to interest girls in a trade.

Difficulties Encountered

All of the women were well aware that they were pioneers in radio and T.V. electronics. All had experienced some adverse reactions but nothing insurmountable. Several had found opposition stimulating and challenging.

> "It makes you want to work harder".

> "If you take other peoples' attitudes to heart you can be disillusioned, but if you go ahead and say 'bugger them' you'll survive."

One did not relish the attention which her unusual choice of career attracted -

> "I'm often embarrassed telling people what my job is because of their reactions, even when they're favourable. There's too much fuss made about it."

Another would have liked more support and attention -

> "I haven't actually encountered any difficulties but nobody's shown any real enthusiasm on my behalf."

Three stressed the difficulties that lack of practical experience had posed - a problem they felt was not encountered by male apprentices and which often put the women at a comparative disadvantage. C. would have liked six months practical work followed by six months basic theory course.

Attitudes were the major problem. A. felt embarrassed as a woman, going into shops to buy trade magazines and tools. B. had just gone on the road and was fed up with customers greeting her with "Oh! A woman!".

The cafeteria lady at C's firm had disapproved of C's apprenticeship and commented "I brought my daughter up to be a lady". C. dreaded future job interviews because although she felt male employers would be impressed that she had passed her exams, she thought they would doubt her technical ability.

One respondent, who had failed her Second Qualifying Exam twice, would have welcomed the opportunity to discuss her exam paper with the marker or a tutor and find out where she went wrong.

Eleven of the respondents thought that in their role as pioneers they had been responsible for a favourable change in peoples' attitudes towards women working in a trade. One respondent also recognised that the experience had changed her self concept and she was now better able to stick up for herself.

On the other hand R.'s boss has said that after her apprenticeship he no longer wants to employ women. R. is very outspoken and has constantly criticised her employer for his lack of on the job training. At the same time she feels he is impressed with her ability to hang on and knuckle down to the job.

At the time of the interview any problems which had arisen because they were women working in a male dominated field were seen by all bar one of the respondents as minor irritants which, whilst annoying, could be handled.

Evaluation

The success of the course needs to be judged in terms of whether the original objectives were fulfilled. It was hoped that if a small group of women became established and visible in a traditional male occupation, others would follow, and that the most likely method of achieving this was to train the women initially in a group so that the support and encouragement they were able to offer each other would counteract the social pressures which might work against their success.

In late 1979 when the interviews took place, 14 (and probably 15) women were firmly established in the field, all planning to complete their apprenticeships. Although there is some doubt as to whether all of the 15 will remain in the electronic field in the long term, all felt positive about their choice of career and all (except one) were happy to recommend a career in a trade to girls leaving school.

In the short term the VTC's objectives in setting up the special course have been fulfilled.

A follow up study in three - five years would show whether the future plans of the respondents have worked out in practice, what factors have influenced their plans, and whether in fact their example has attracted women into the radio and T.V. repair trade through the normal channels.

In conclusion, it is clear that there are women whose interests lie in what has previously been defined as "the masculine sphere", many of whom would not be happy in traditional female jobs. By encouraging women to enter traditional male occupations, VTC is offering greater job satisfaction and fulfillment to a significant number of women.

FOOTNOTES

1. Education and Equality of the Sexes: Department of Education, Wellington 1975.

2. O'LEARY V. Some attitudinal barriers to occupational aspirations in women: Psychological Bulletin 81, 11 1974: 809-826.

3. Unpublished reports held by the Vocational Training Council.